

Coast Guard, DHS

§ 164.008-2

(2) A commitment that he will reimburse the National Bureau of Standards for the cost or review of the tests when billed by them.

(3) If the manufacturer desires to witness the test, he should so indicate at this time.

(e) *Test authorization.* The National Bureau of Standards will then be authorized to conduct the tests noted in §164.007-4 and, upon completion of all testing, the manufacturer will be billed directly by the National Bureau of Standards. Four copies of the test report containing the information required by §164.007-6 will be submitted to the Coast Guard.

(f) *Notification of results.* A copy of the report will be forwarded to the manufacturer and he will be advised if his material is approved under this subpart. If approved, any stipulations of the approval will be specified. This information will be published in the FEDERAL REGISTER, and a certificate of approval will be issued to the manufacturer.

(g) *Other laboratories.* (1) If the manufacturer desires to have the test conducted at some laboratory other than the National Bureau of Standards, this information shall be supplied at the time of initial contact with the Coast Guard. If the proposed laboratory is acceptable to the Coast Guard, the manufacturer will be so advised, and any special testing requirements together with any estimated cost of expenses incurred by the National Bureau of Standards for their review will be specified at this time. The Coast Guard shall be notified in advance of the date of the test so that a representative may be present.

(2) The laboratory shall submit four copies of a detailed test report to the Coast Guard together with representative samples of the material taken before and after testing. The test report and samples will be examined by the National Bureau of Standards for compliance with this subpart. The test report shall include the information required by §164.007-6 together with any other pertinent data.

Subpart 164.008—Bulkhead Panels

SOURCE: CGFR 69-72, 34 FR 17500, Oct. 29, 1969, unless otherwise noted.

§ 164.008-1 Applicable specification and reference material.

(a) *Specification.* The following specification of the issue in effect on the date of manufacture of the bulkhead panel shall form a part of the regulations of this subpart (see §§2.75-17 through 2.75-19 of subchapter A, Procedures Applicable to the Public, of this chapter):

(1) Coast Guard specification:

Subpart 164.009 of this part, Incombustible Materials for Merchant Vessels.

(b) *Guidance.* For guidance you may use the following technical reference: ASTM E 119-98, Standard Test Methods for Fire Tests of Building Construction and Materials. You may obtain it from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

(c) *Copies on file.* A copy of the specification listed in paragraph (a) of this section shall be kept on file by the manufacturer, together with the certificate of approval and this specification. It is the manufacturer's responsibility to have the latest issue of the specification on hand together with the certificate of approval and approved plans when manufacturing under this specification subpart.

(1) The Coast Guard specification may be obtained from the Commandant (CG-ENG), Attn: Office of Design and Engineering Systems, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE., Washington, DC 20593-7509.

[CGFR 69-72, 34 FR 17500, Oct. 29, 1969, as amended by CGD 82-063b, 48 FR 4783, Feb. 3, 1983; CGD 88-070, 53 FR 34537, Sept. 7, 1988; CGD 95-072, 60 FR 50467, Sept. 29, 1995; CGD 96-041, 61 FR 50734, Sept. 27, 1996; USCG-1999-5151, 64 FR 67185, Dec. 1, 1999; USCG-2009-0702, 74 FR 49238, Sept. 25, 2009; USCG-2013-0671, 78 FR 60162, Sept. 30, 2013]

§ 164.008-2 Conditions of approval.

(a) Bulkhead panel material shall be of such quality as to successfully meet the requirements for an incombustible material as set forth in subpart 164.009 of this part.

(b) Bulkhead panels used in Class B-15 construction and as a component in Class A-30 or Class A-15 construction shall meet the thermal insulation requirements of §164.008-4(a) for at least 15 minutes, and the integrity requirements of §164.008-4(b) for at least 30 minutes.

(c) Bulkhead panels for use as a component in Class A-60 construction shall meet the thermal insulation requirements of §164.008-4(a) for at least 15 minutes and the integrity requirements of §164.008-4(b) for at least 60 minutes.

(d) The product shall be so marked as to be readily identifiable to an inspector in the field. The marking shall include the Coast Guard approval number.

(e) The specimen to be tested shall be representative of the typical installation on board a vessel and any limitations shall be shown on the sketch required by §164.008-7(a)(7).

(f) The bulkhead panel shall successfully pass the retests required by §164.008-6.

§ 164.008-3 Testing procedure.

(a) *Tests.* All tests, including the retests, shall be conducted at the National Bureau of Standards or other laboratories designated by the Coast Guard.

(b) *Preparation of test specimen.* (1) The test specimens shall be conditioned to approximately constant weight with the air being maintained at a relative humidity of 40 to 70 percent and a temperature of 15° to 25 °C. (59° to 77 °F.). After conditioning, but before testing, the temperature of the specimen should not exceed 40 °C. (104 °F.).

(2) The specimens shall be mounted in the furnace in a vertical position in such a way as to give an exposed surface of at least 4.65 square meters (50 square feet) and a height of at least 2.44 meters (8 feet).

(3) The specimen shall be supported at the top and secured on the vertical sides and at the bottom in a manner representative of conditions in service. If provision for movement at the edges of a bulkhead panel is made for a particular construction in service, the

specimen should stimulate these conditions.

(4) The method of securing shall be such that there is no possibility of misinterpretation of test results due to the passage of flame at the edges of the specimen when the method of fixing is not the subject of the test.

(c) *Furnace control.* (1) The furnace temperature shall be determined by at least four mineral insulated thermocouples having rapid response and distributed so as to represent fairly the furnace temperature and to insure as uniform heating as possible. The thermocouples shall be arranged so that the hot junction is approximately 10 cm. (4") from the nearest point of the specimen.

(2) The furnace temperature shall be continuously controlled so as to follow the standard time-temperature curve within the accuracy specified in paragraph (c)(4) of this section.

(3) The standard time-temperature curve is defined by a smooth curve drawn through the following points:

At the beginning of the test, 20 °C. (68 °F.).
At the end of the first 5 minutes, 538 °C. (1,000 °F.).
At the end of the first 10 minutes, 704 °C. (1,300 °F.).
At the end of the first 30 minutes, 843 °C. (1,550 °F.).
At the end of the first 60 minutes, 927 °C. (1,700 °F.).

For a further definition of the time-temperature curve, see Appendix I of the ASTM Standard E119, "Fire Tests of Building Construction and Materials".

(4) The accuracy of the furnace control shall be such that the area under the mean time-temperature curve is within 15 percent of the area under the standard curve during the first 10 minutes of the test, within 10 percent during the first one-half hour, and within 5 percent for any period after the first one-half hour. At any time after the first 10 minutes of the test the mean furnace temperature shall not differ from the standard curve by more than 100 °C. (180 °F.). Consideration will be given to adjusting the results for variation of the furnace exposure from that prescribed. If corrections are made, they shall be in accordance with the procedures set forth in ASTM E-119.